

## ABSTRACT

- A multi-mode wireless device on a single substrate includes an analog portion and
- 5    a digital portion integrated on the single substrate. The analog portion includes a cellular  
radio core; and a short-range wireless transceiver core. The digital portion integrated on  
the substrate includes a reconfigurable processor core coupled to the cellular radio core  
and the short-range wireless transceiver core, the reconfigurable processor adapted to  
handle a plurality of wireless communication protocols. The digital portion also includes
- 10    a high-density memory array core coupled to the reconfigurable multi-processor core.

DRAFT PENDING EXAMINER'S REVIEW